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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,844	06/27/2006	Naoki Sumi	JP030026	1252
24737 7590 02/06/2009 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER HEYMAN, JOHN S				
ART UNIT 2871		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/596,844

Applicant(s)

SUMI, NAOKI

Examiner

JOHN HEYMAN

Art Unit

2871

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-20 is/are allowed.
- 6) ☒ Claim(s) 1-6, 12, 21 is/are rejected.
- 7) ☒ Claim(s) 7-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CIS)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 06/13/2008

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 06/13/2008 was filed after the mailing date of the instant application on 06/27/2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. It is noted however, that two identical IDS statements were file. One therefore was ignored.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 6 recite the limitation "the larger/smaller pitch" in lines 17 and 19 in Claim 1, and in lines 12 and 14 in Claim 6. There is insufficient antecedent basis for this limitation in these claims. Also, the last clause of these claims is unclear. It is not known just what the "non-integral multiple of the smaller pitch" refers. There are so many "pitches" recited, it is unclear which or what "smaller pitch" refers.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1, 2 and 12 are rejected under 35 U.S.C. 102(a) as being anticipated by Yoshii. Looking at Figs. 4 and 5 of Yoshii, and comparing them with Claim 1, a reflective structure comprises a base 28, a reflective means 30 formed on the base, wherein the base comprises: a supporting member 28 provided with a first fundamental surface 28b having portions differing in their height and a second fundamental surface 112 having portions differing in their height (Fig. 5); a first undulating portion 28b, formed on supporting member 28 having a first recess 28f or projection 28d, and a second undulating portion 111a-b, formed on the supporting member, having a second recess 111b or projection 111a (Fig. 5) associated with first recess or projection 28c or 28d, wherein the first and second fundamental surfaces are arranged in a first direction at a first fundamental surface pitch L (Fig. 4), wherein first and second undulating portions are arranged in the first direction at a first undulating portion pitch, and wherein the larger pitch L of the first undulating portion pitch and the first fundamental surface pitch is a non-integral multiple of the smaller pitch P (Fig. 5). Note col. 9, line 23 that pitch P "irregularly fluctuates" so that the first fundamental surface pitch L would be a non-integral multiple of the smaller pitch P insofar as understood from the claim language. Thus, Claim 1 is not patentable.
7. Regarding Claim 2, note that the first undulating portion 28b is continuous with the second undulating portion 111a-b to thus anticipate this claim.
8. Regarding Claim 12, note reflective means 30 (Fig. 3) of Yoshii comprises a reflective line extending in the first direction as recited to anticipate this claim.

9. Regarding Claim 21, note col. 1, line 26 in which image display devices are disclosed for the reflective structure recited to thus anticipate this claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshii as applied to claim 1 above, and further in view of Sasagawa et al. (Sasgawa – US 2001/0035927). Not disclosed by Yoshii is having the first fundamental surface pitch being equal to the pixel pitch. Sasagawa discloses this feature in paragraph 31 (last line). That is, Sasagawa teaches to make the pitch between the grooves not larger than the pixel pitch. It would have been obvious to apply the teaching of Sasagawa to Yoshii for the reason given in Sasagawa, namely, so that the unevenness of brightness can be made unrecognizable to thus meet Claim 3.

12. Regarding Claim 4, note that reflection means 30 includes first and second reflectors 28b and 111a-b arranged in the first direction at (as?) the first pixel pitch.

13. Regarding Claim 5, note Fig. 7 of Yoshii in which display circuits 26 and 27 are shown which are disclosed as including electrode layers for driving the LCD (col. 12, line 43). Official notice is taken that this would obviously include first and second conductors and first and second driving elements for the respective reflectors as recited to thus render obvious this claim.

Allowable Subject Matter

14. Claims 6-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and, upon the 35 USC 112 technical deficiency of Claim 6 being overcome.

15. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art uncovered shows or discloses, *inter alia*, a third fundamental surface having portions differing in their height... and wherein the first and third fundamental surfaces are arranged in a second direction at a second fundamental surface pitch. Also, no prior art has been found in which the base comprises a third undulating portion, formed on the supporting member, having a third recess or projection associated with the first recess or projection. And, wherein the first and third undulating portions are arranged in a second direction at a second undulating portion pitch. As such, Claim 6 reciting these features along with dependent Claims 7-11 would be allowable (upon the '112 rejection of Claim 6 being overcome).

16. Claims 13-20 are allowed.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Itami et al. (US 7,480,019) is cited to show in Fig. 2 thereof a reflector with two surfaces and undulations (Figs. 11A and 11B).

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN HEYMAN whose telephone number is (571)272-5730. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571- 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Heyman/
Examiner, Art Unit 2871